The Monitor

The Newsletter of the ETV Advanced Monitoring Systems (AMS) Center

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AMS Center Welcomes New ETV Director

Teresa Harten, the newly appointed director of the ETV Program, was a welcome participant at the AMS Center's air stakeholder committee meeting in Seattle, WA, in October. "ETV's long-term goal is to make better environmental technology available to more ecosystems and people," Ms. Harten said. She said that the program's immediate goal is to provide objective performance data to purchasers and permitters of environmental technologies.

Ms. Harten also expressed her appreciation to all 1,147 ETV stakeholders, who represent a variety of groups, including regulators, trade and professional associations, environmental groups, financial and investment professionals, and technology users. Through October, 164 technologies had been verified by the ETV's six centers, 36 of them by the AMS Center.

She said the ETV Program is entering the second half of its 10-year plan. ETV expects to answer two major

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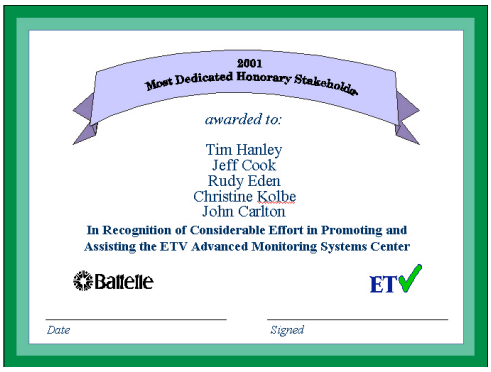
Teresa Harten



Five stakeholder committee members received certificates of appreciation (counter clock-wise, from above left): Tim Hanley, Jeff Cook, Rudy Eden, Christine Kolby, John Carlton.

Stakeholders Help AMS Center Prioritize Future Tests

Prioritizing technologies for future verification tests was high on the agendas of the October meetings of the Advanced Monitoring Systems (AMS) Center's air and water stakeholder committees.

Stakeholders received status reports on verification tests underway or planned, offered suggestions for future technology categories to be tested, and welcomed Teresa Harten, the new ETV director.

Award certificates were presented to five stakeholders for their contributions in supporting tests and reviewing verification reports this year:

- Air stakeholder committee—Jeff Cook, California Air Resources Board, Sacramento, CA; Rudy Eden, South Coast Air Quality Management District, CA; and Tim Hanley, U.S. EPA, Research Triangle Park, NC.

- Water stakeholder committee—John Carlton, Alabama Department of Environmental Management, Mobile, AL; and Christine Kolbe, Texas Natural Resource Conservation Commission, Austin, TX.

The air committee members designated these technology categories to be considered for immediate consideration: continuous emission monitors (CEMs) for ammonia "slip"; in-stack organic speciation analyzers; and continuous monitors for formaldehyde in ambient air or stacks. Other categories were

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mentioned for longer-term consideration.

Members of the water committee identified several possible technology categories for verification testing, including ion-specific probes that detect metals (e.g., zinc, lead); real-time down-hole sensors; technologies for detecting petroleum products in water; detectors of endocrine disruptors and pharmaceuticals; groundwater velocity meters; on-line nitrate and phosphate analyzers; particle counters; and bacterial detectors. Following is a summary of ongoing and planned verification test opportunities:

Ammonia CEMs. A verification test is being planned for technologies that detect ammonia "slip" emissions. Ammonia "slip" refers to the amount of unreacted ammonia that may bypass a NO_x reduction catalyst and escape into the atmosphere. Contact: Ken Cowen, 614-424-5547 or cowenk@battelle.org.

Mercury CEMs. Phase 2 of this verification test is to be conducted at one or more full-scale facilities. One possible site is the TOSCA incinerator at Oak Ridge, TN. Contact: Tom Kelly, 614-424-3495 or kellyt@battelle.org.

Multi-metals CEMs. A verification test of an X-ray-based continuous emission monitor for metals (XCEM), was conducted in collaboration with the U.S. Army's Construction Engineering Research Laboratory at its demilitarization incinerator at the Tooele (UT) Army Depot.

This test evaluated the instrument's performance in determining multi-metal concentrations in combustion source emissions. Contact Tom Kelly (see above).

Multi-parameter water probes. Four vendors are expected to participate in this test, which is currently being scheduled. Battelle is collaborating on this test with the Charleston, SC, office of the National Oceanic and Atmospheric Administration (NOAA). Contact: Jeff Myers, 614-424-7705 or myersjd@battelle.org.

On-board vehicle emission analyzers. A four-day verification test of an on-board vehicle emission monitor was completed in May for Clean Air Technologies of Buffalo, NY. Preparation of the final verification report and statement is pending. Contact Tom Kelly (see above).

Portable arsenic water analyzers. Four vendors of portable arsenic water analyzers participated in the verification test, which began in October and was completed early in November. The technologies were tested for monitoring arsenic in the 1-100 parts per billion (ppb) range in fresh water, well water, and public drinking water. Contact Adam Abbgy, 614-424-5484 or abbgya@battelle.org.

Portable emission analyzers. Vendors are invited to submit technologies for the test to measure capabilities to detect NO/NO_2, SO_2, CO, and oxygen (O_2) in combustion emissions. Contact Tom Kelly (see above).

Harten *(from page 1)*

questions during the 2001 through 2006 period. *Can technology verification prove valuable in spreading the use of better technology around the world? Will new and better technology continue to emerge from the private sector for verification?*

Ms. Harten identified near-term themes as well, for example, strengthening partnerships with other federal and state agencies and private sector companies, and measuring the impacts of ETV in terms of technology diffusion and environmental improvement.

Before coming to the ETV Program, Ms. Harten served as chief of the Clean Processes Branch in the Sustainable Technology Division of U.S. EPA's National Risk Management Research Laboratory (NRMRL) in Cincinnati, OH.

She has experience in wastewater technology, hazardous waste treatment, and pollution prevention.

Previously, Ms. Harten was employed by the Ohio EPA in environmental permitting and enforcement and for the city of Cincinnati in drinking water treatment and research.

Ms. Harten replaced Penelope Hansen, who retired after serving as the director of the ETV Program since its inception in October 1995.

ETV Holds Verification Workshop in India

The first environmental technology verification workshop held in India was conducted in September in New Delhi by various U.S. and Indian groups. Sponsors included the Federation of Indian Chambers of Commerce and Industry, U.S. EPA, the U.S.-Asia Environmental Partnership, and the U.S. Agency for International Development.

The four-day workshop was conducted by five representatives of EPA and its ETV Program: Dennis Cunningham, EPA Office of International Activities; Blair Martin, EPA Office of Research and Development; Adam Abbgy, Battelle's ETV Advanced Monitoring Systems Center; Gordon Bellen, NSF International's ETV Drinking Water Systems Center; and Stephen Piccot, Southern Research Institute's ETV Greenhouse Gas Technology Center.

Approximately 100 people from industry, government, financial and technical institutions, technology suppliers, and the media attended.